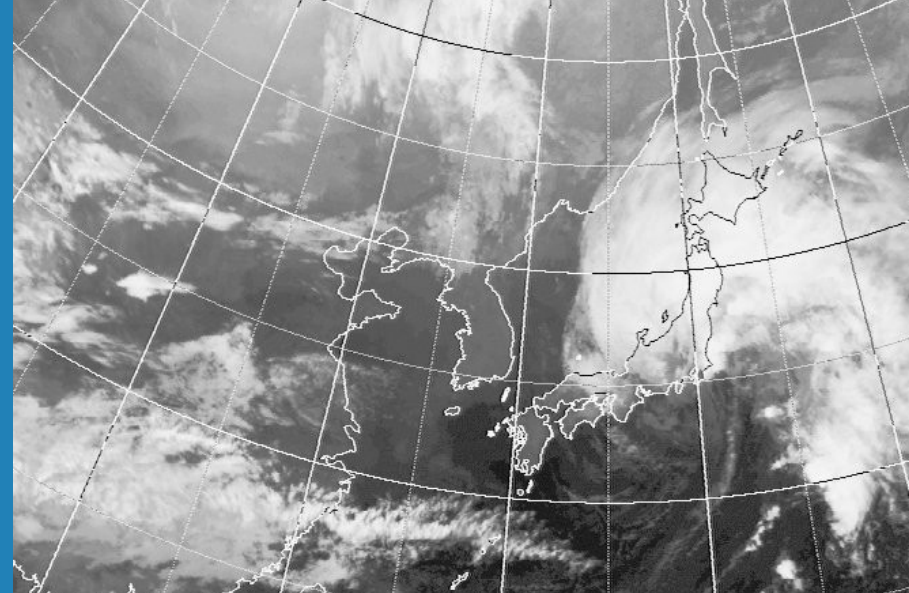
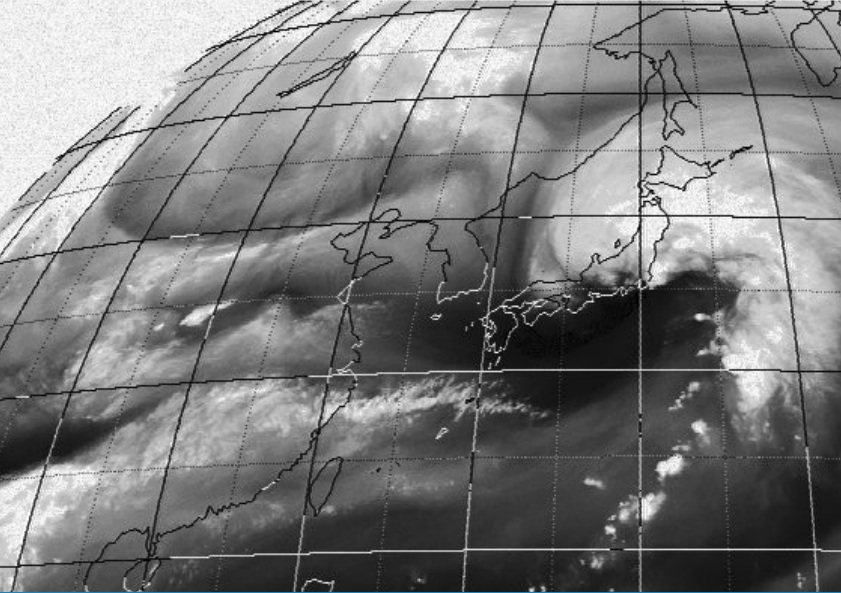




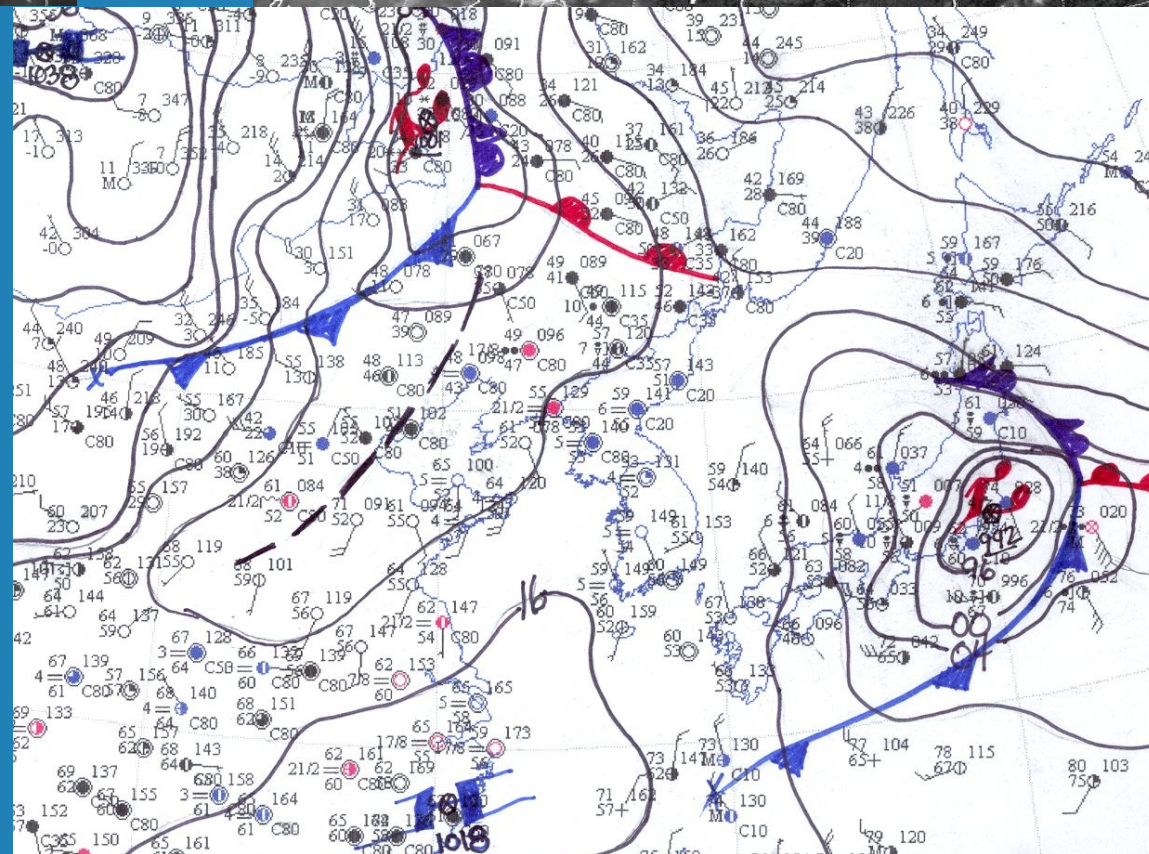
Severe Thunderstorms

28 October 1999

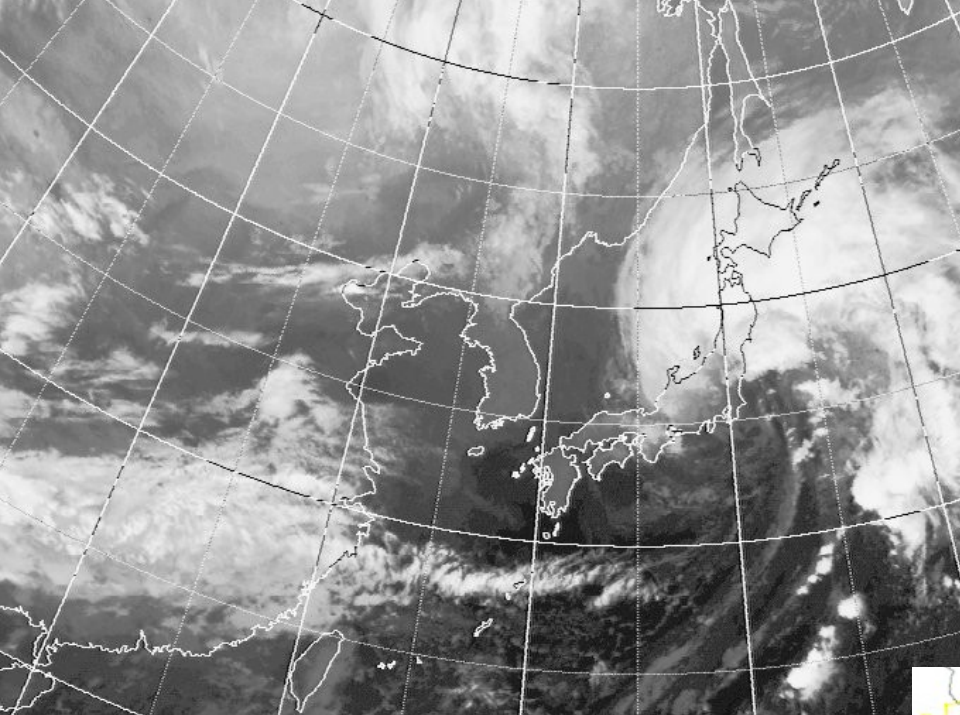


**27 Oct 99 /
12Z**

**A Mature Mongolian System
is present over inner
Mongolia. With a pre-frontal
trough over the Northwestern
Gulf of Pohai. Weather ahead
of the frontal system is
minimal at this time, however
ahead of the pre frontal
trough the gradient winds are
tightening and Mvfr and Ifr
cigs / vis are being observed.**

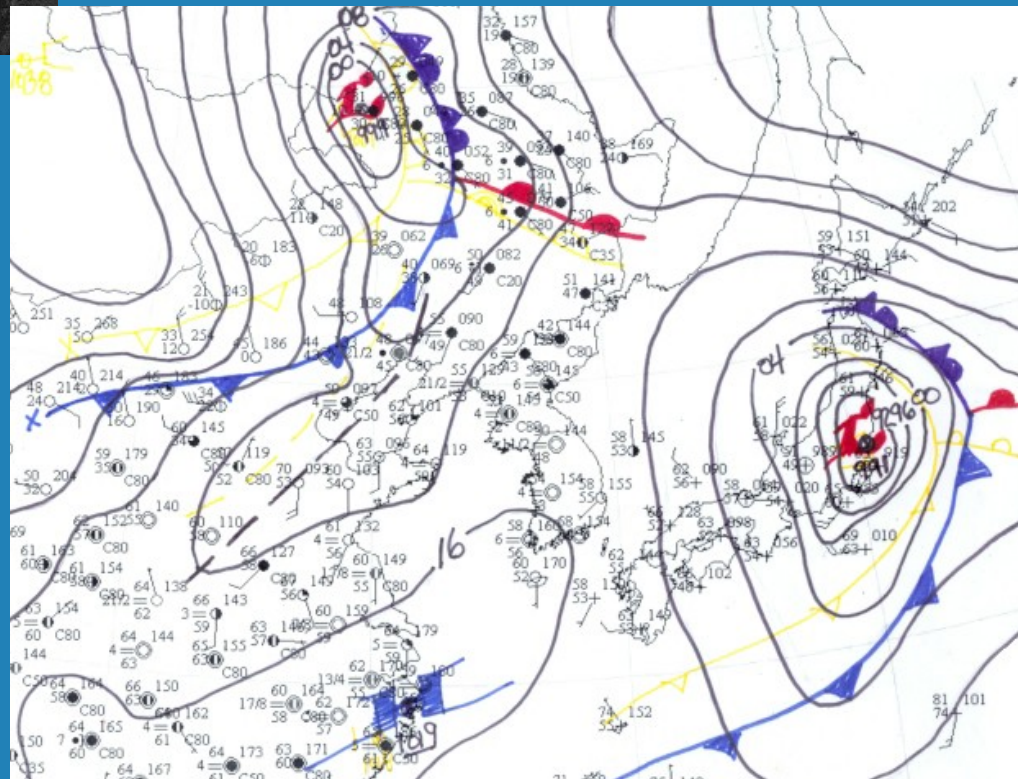


**27 Oct 99 /
15Z**

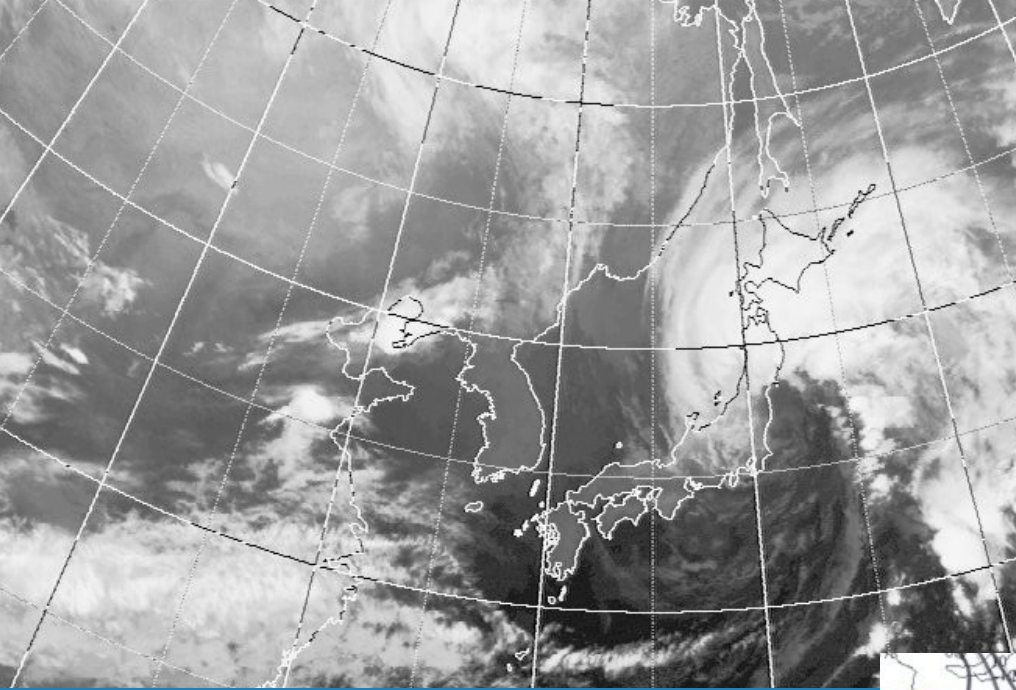


**27 Oct 99 /
15Z**

By this time the front has moved south east into Inner Mongolia and the pre-frontal trough is over the Northwestern Gulf of Pohai. Low clouds and fog are present over the Peninsula at this time. Winds ahead of the pre-frontal trough are increasing as the gradient begins to tighten.

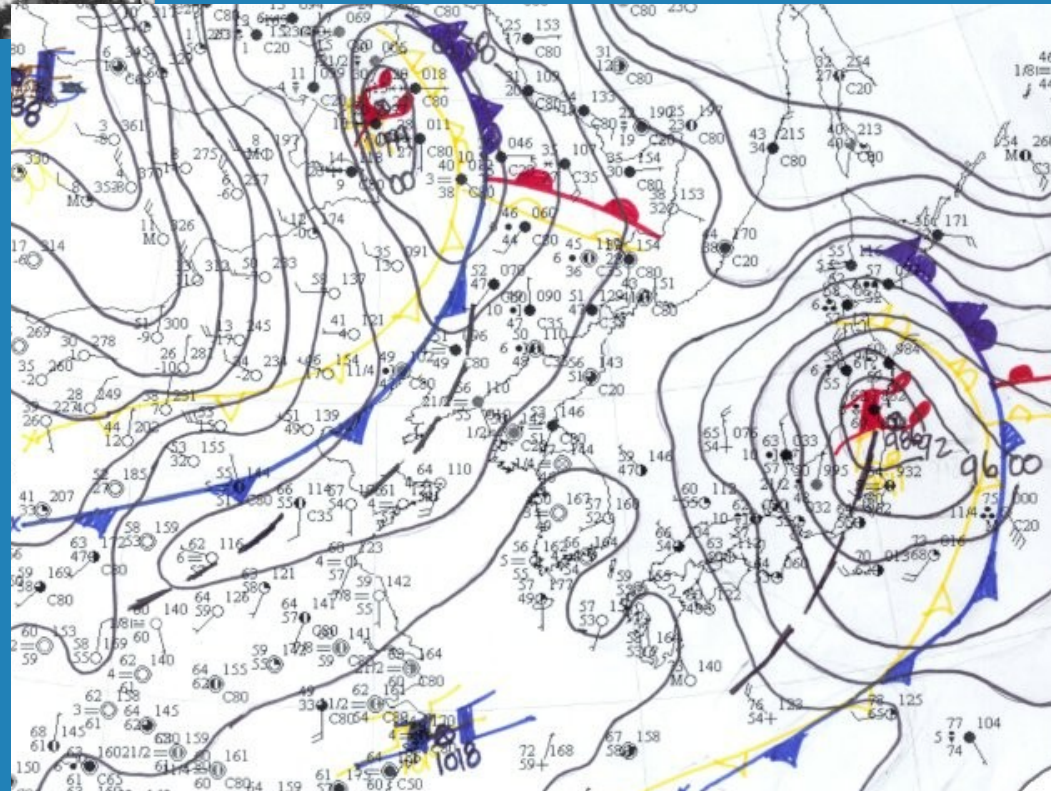


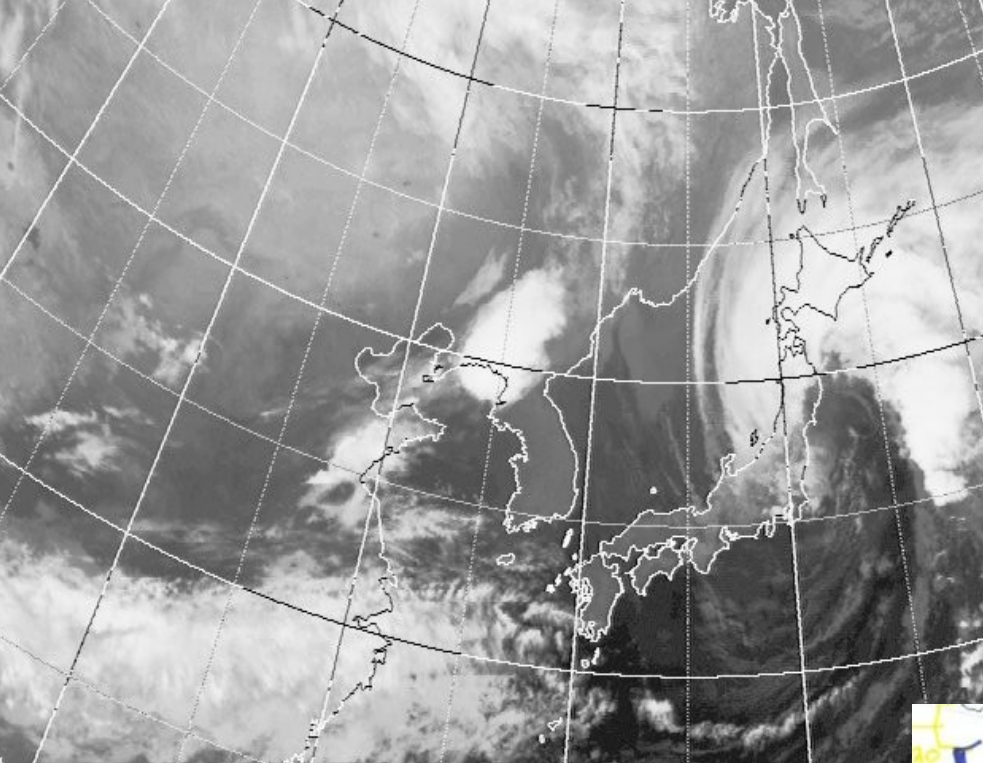
**27 Oct 99 /
18Z**



**27 Oct 99 /
18Z**

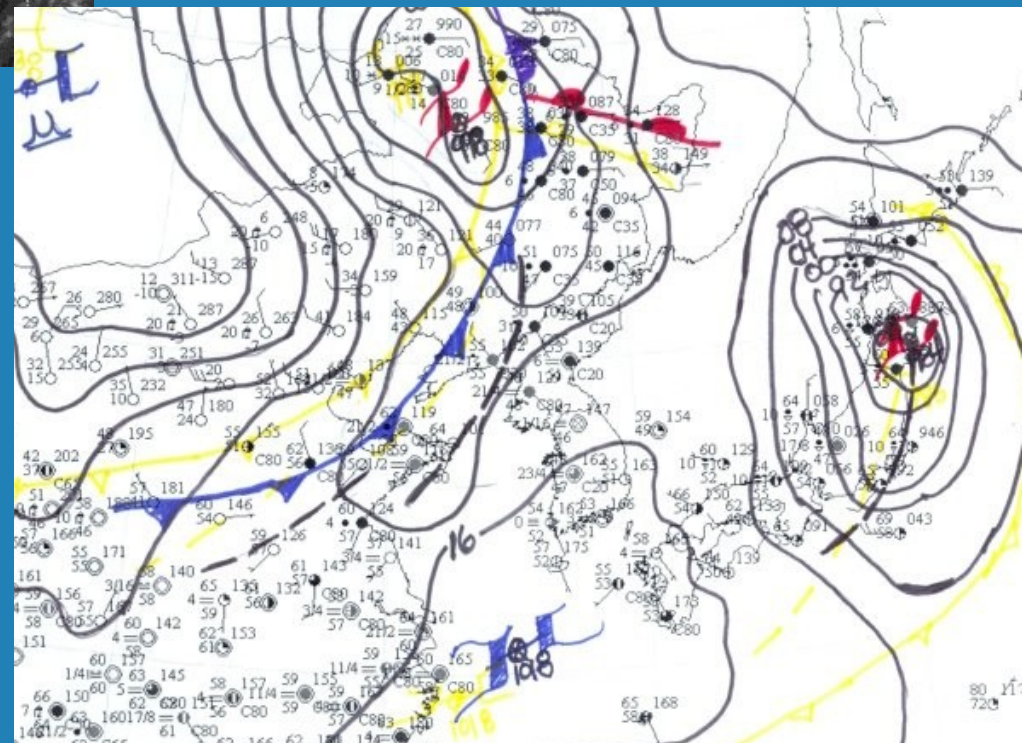
The pre-frontal trough continues to move but slower at this time as it begins to run into the downstream ridge. The surface front continues to move south east into the NW Gulf of Pohai. Interaction between the West Sea moisture and the pre-frontal trough's lift initiated convection over the Gulf of Pohai.



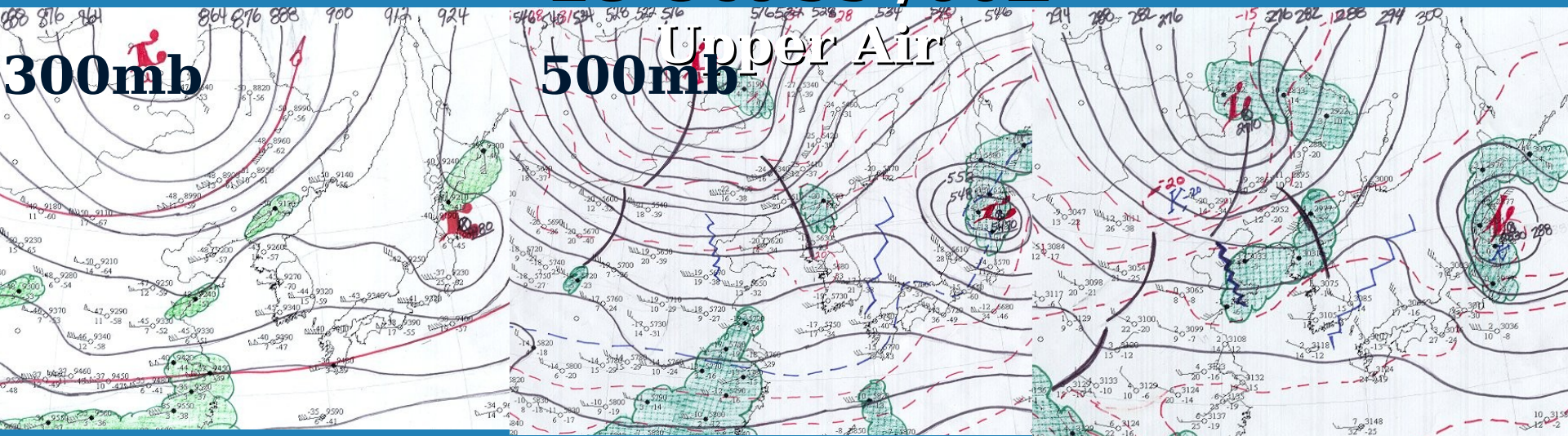


27 Oct 99 /

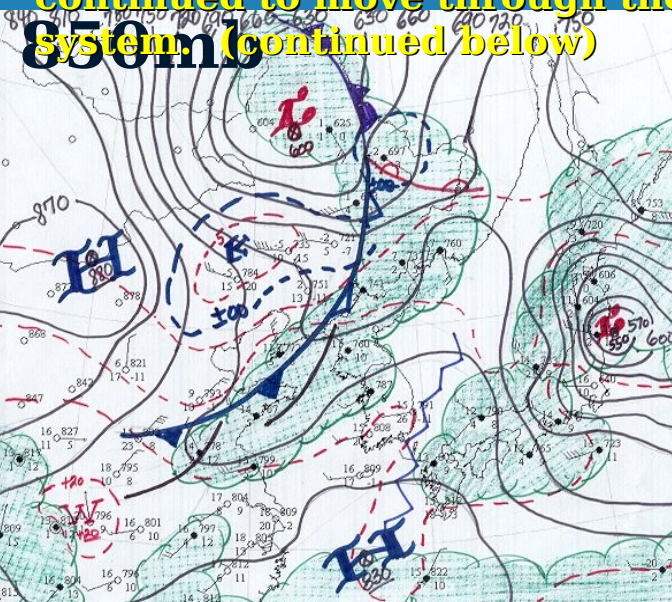
21Z
As the pre-frontal trough enter the higher terrain of North Korea is slows down even further. The front continues to move southeast into the central portion of the Gulf of Pohai. Thunderstorms continue to form ahead of the front and behind the pre-frontal trough. The southern portion of the peninsula is still under the influence of weakening high pressure and MVFR and IFR conditions persist in this area.



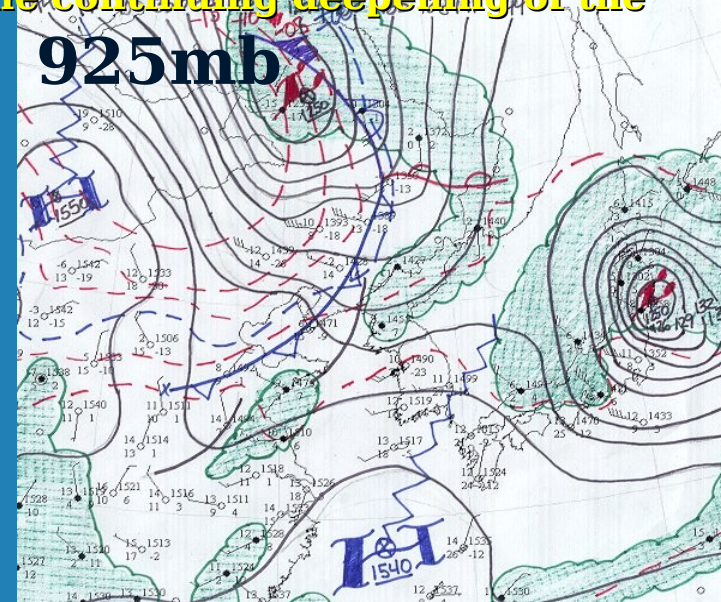
28 Oct 99 /00Z

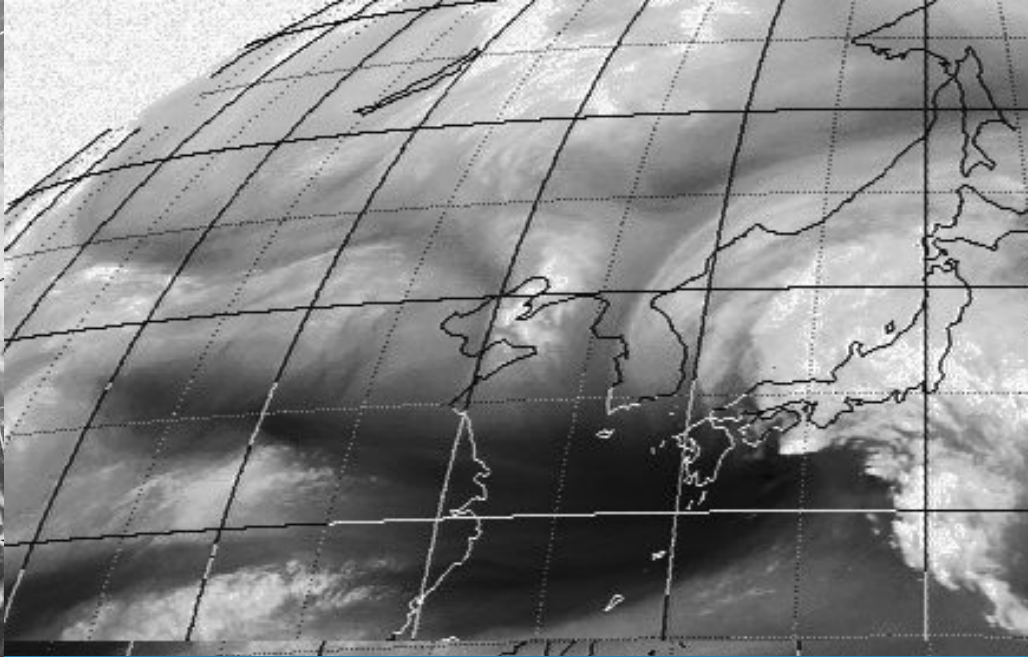
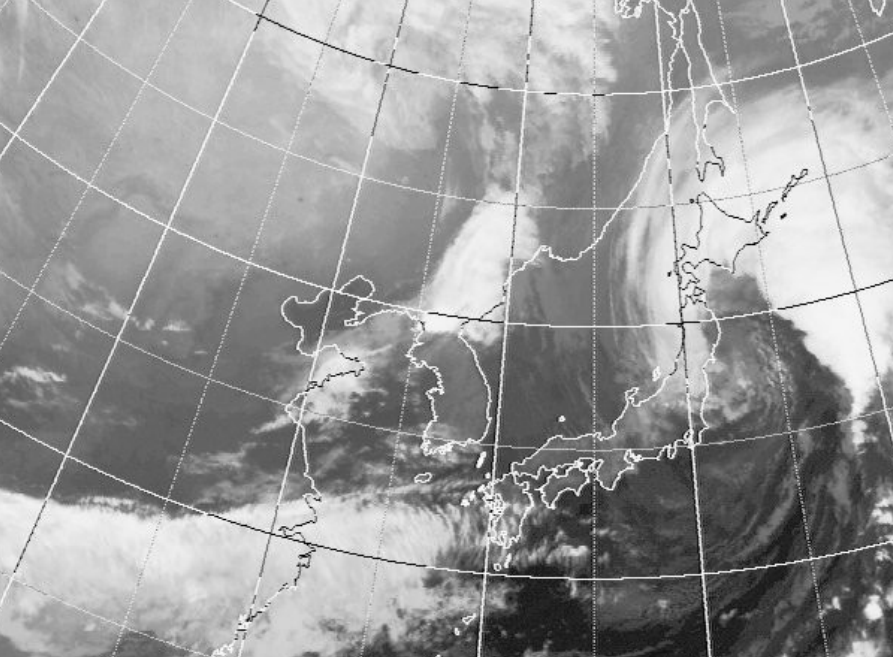


300mb: An area of jet directional diffluence over the peninsula indicated by west winds of 55kts over RKSO and SW winds of 110kts over the Yalu River Valley. **500mb:** The upper level low supporting the surface mature wave over Manchuria stacked 3-4 degrees back with good CAA continuing. **700mb:** A -20C cold pocket at this level continued to move through the mean flow supporting the continuing deepening of the system. (continued below)



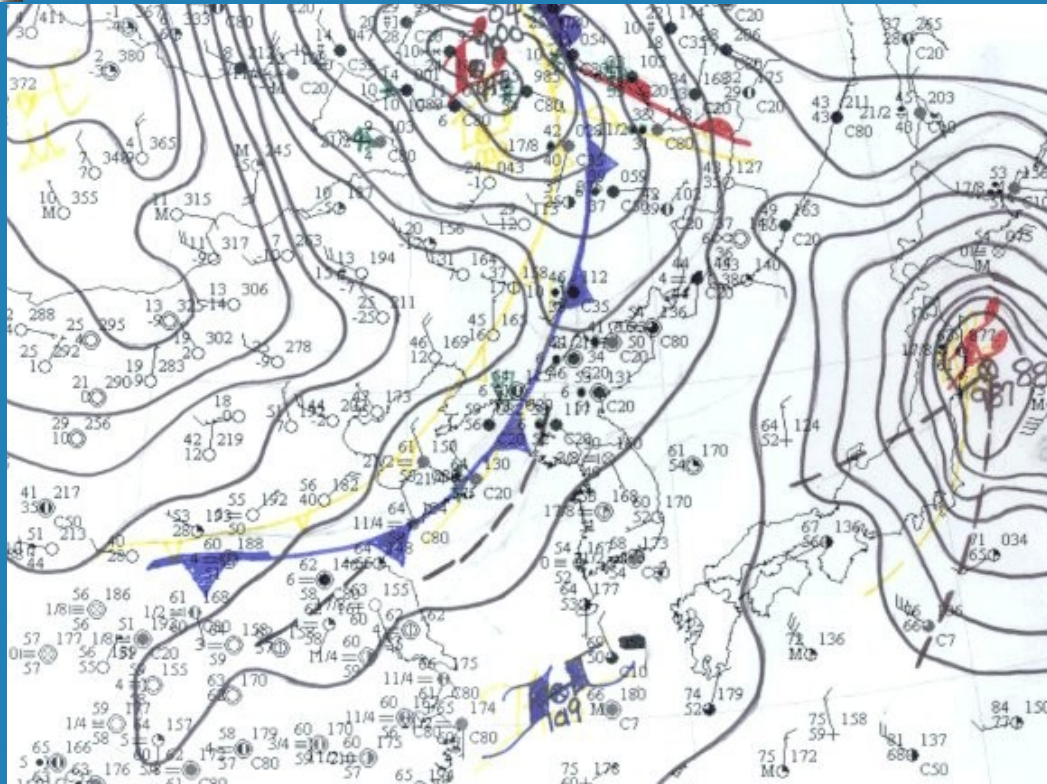
850mb: Strong thermal ridging indicated over the peninsula with strong CAA behind the upper front and 25-30kts of perpendicular wind component to the front is present at this level. Low level moisture is weak with DPD's of 2-4 Celcius degrees. **925mb:** low level wind flow is SW at 15-20kts with DPD's

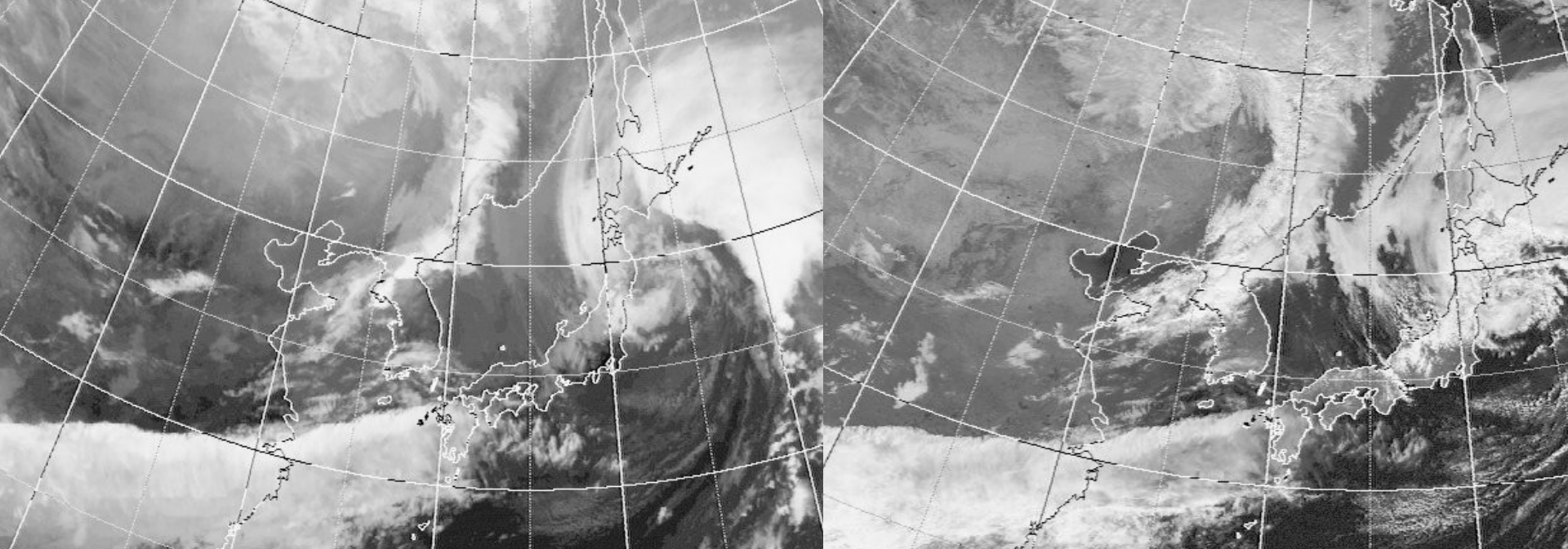




28 Oct 99 /

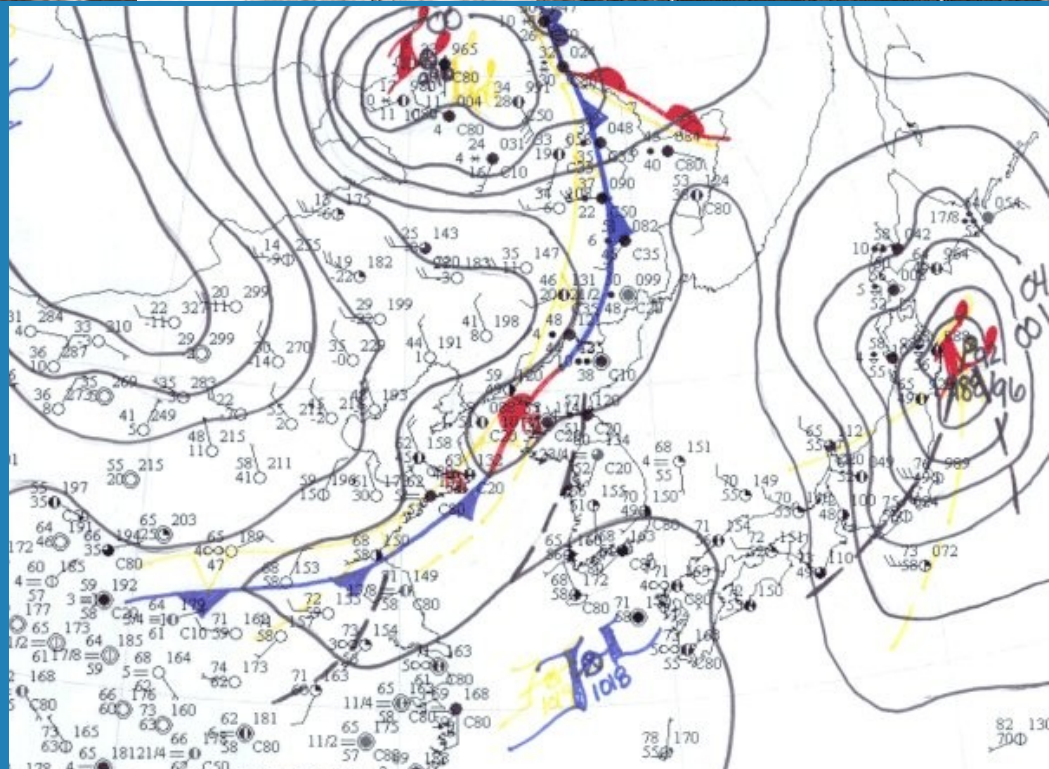
00Z
 The pre-frontal trough continues to move slowly over the West Sea with the warm, moist unstable air providing fuel for the developing thunderstorm activity. Thunderstorms continue to develop over North Korea and the Shantung peninsula

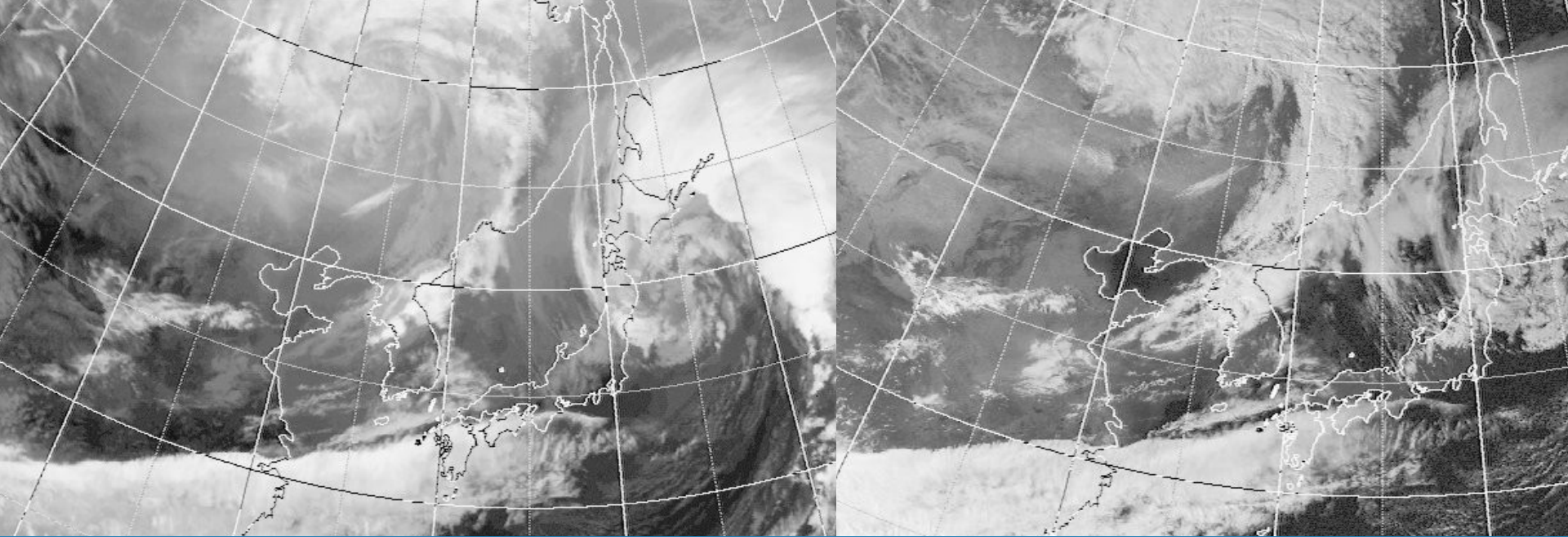




28 Oct 99 / 03Z

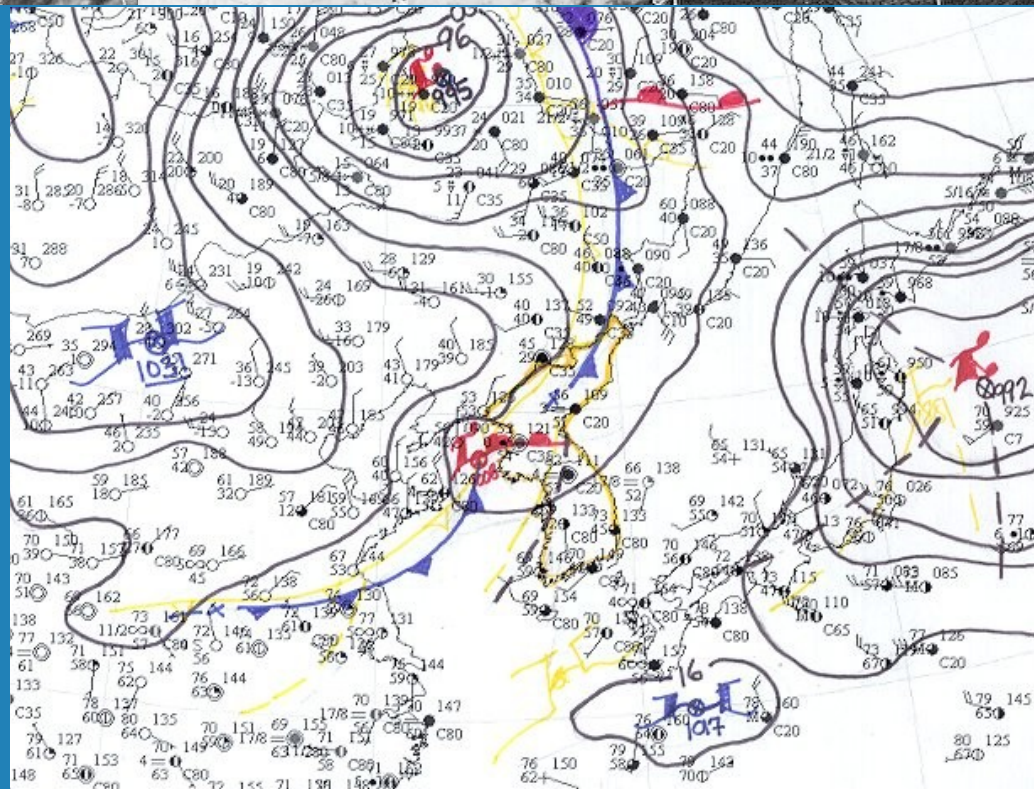
The pre-frontal trough now entering the western portion of the peninsula has provided enough lift to support the development of thunderstorm activity over the northwest coast and central North Korea. Satellite indicates the activity on both visual and IR . Indications of a wave forming on the front are evident on satellite and the

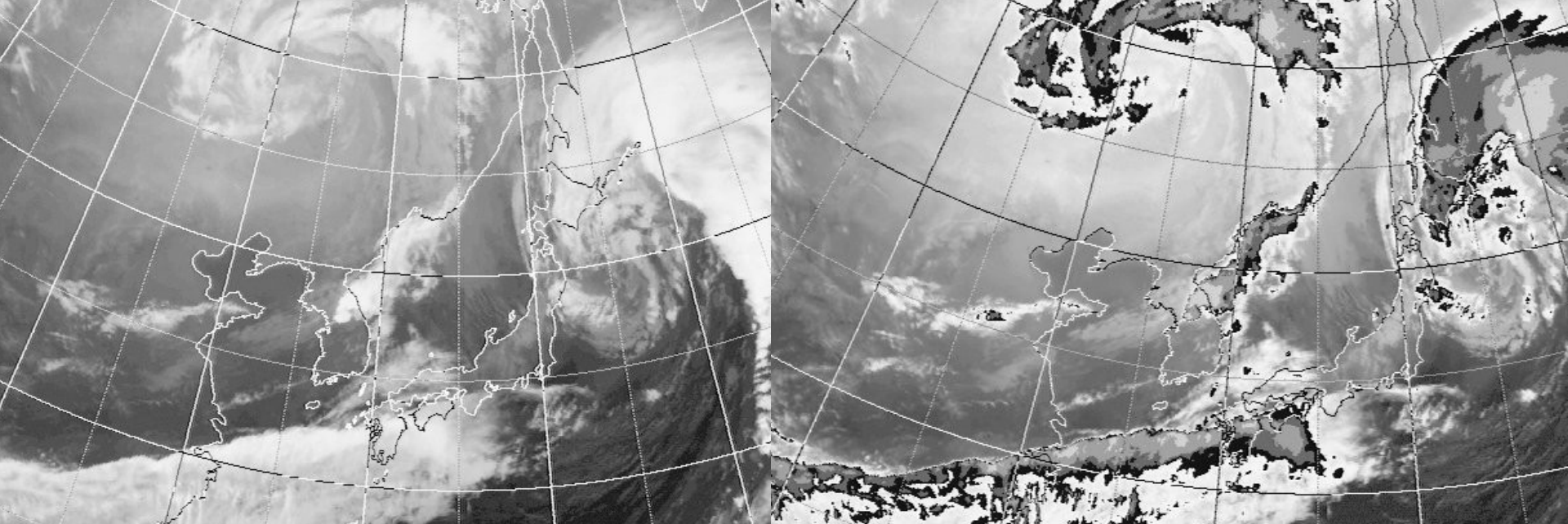




28 Oct 99 / 06Z

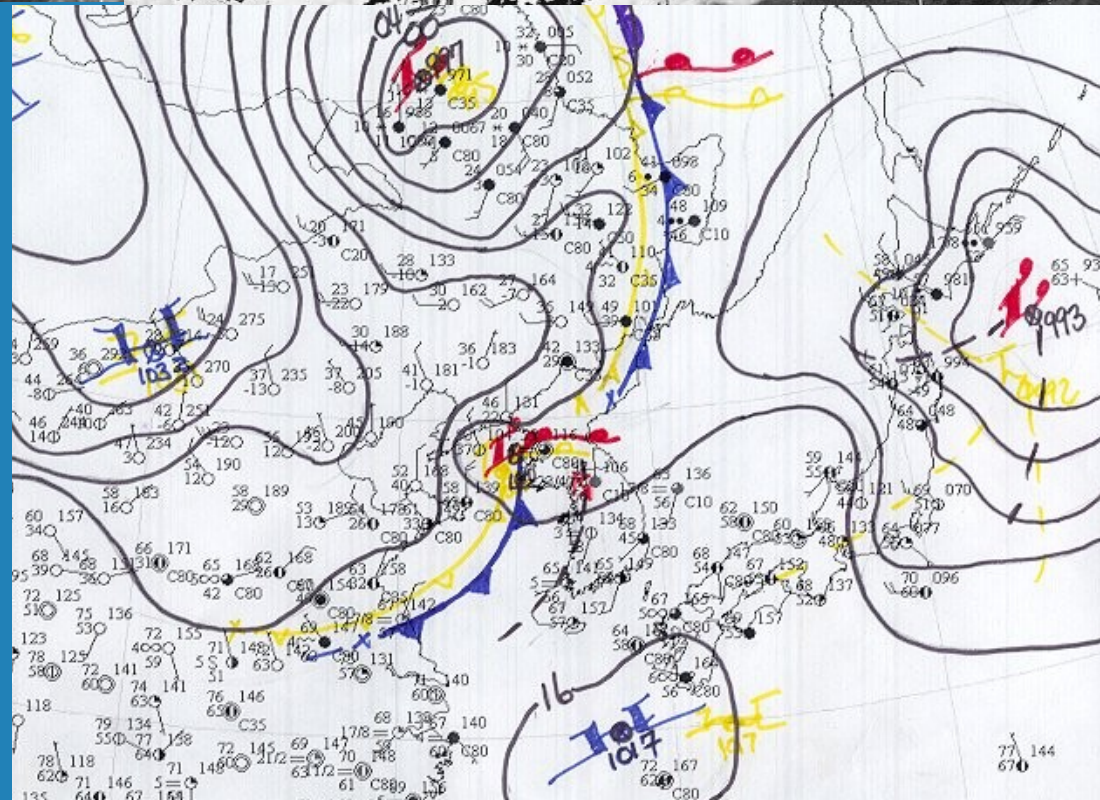
Ir satellite imagery indicates thunderstorm activity ahead of the front is well into the western corridor area RKSX (Kangwa Island) and other western coastal locations have reported thunderstorms in the last hour. The wave on the frontal boundary has continued to deepen to 1008mb and move slowly northeastward at 5kts. Visual satellite imagery shows a large area convective clouds over the North west ROK with a strong clearing area behind the developing low as colder drier air is being pulled down by the

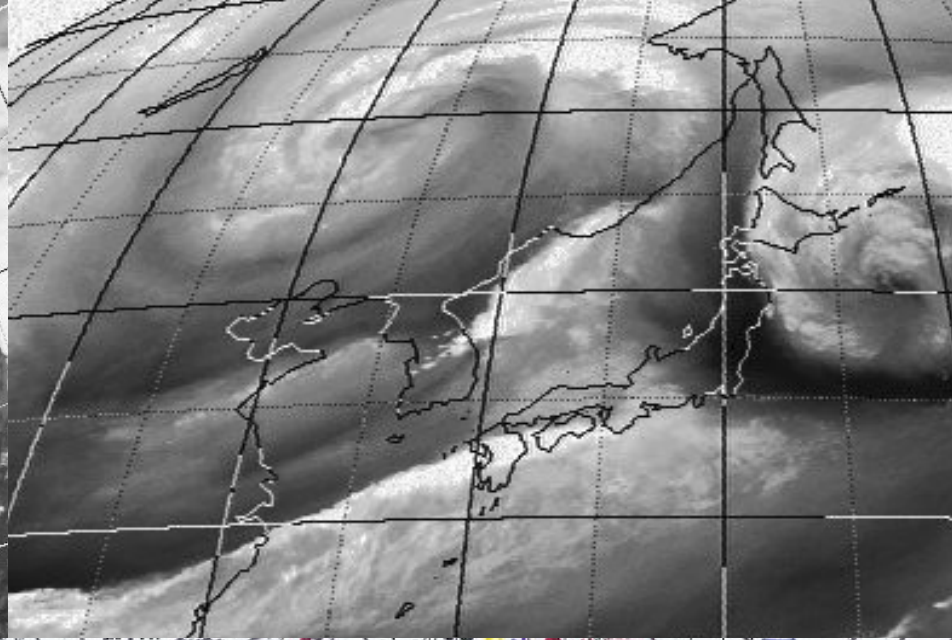
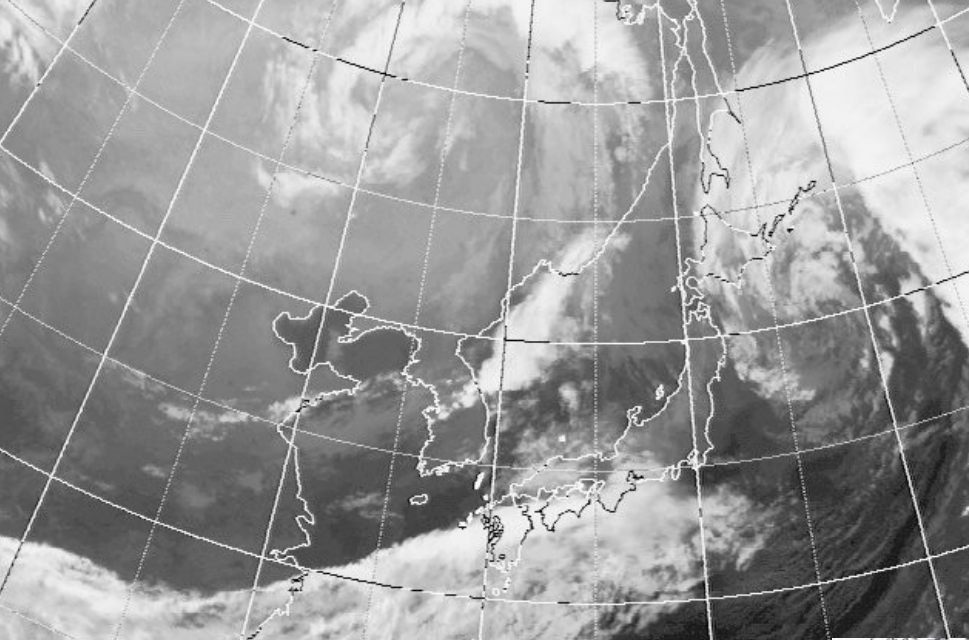




28 Oct 99 / 09Z

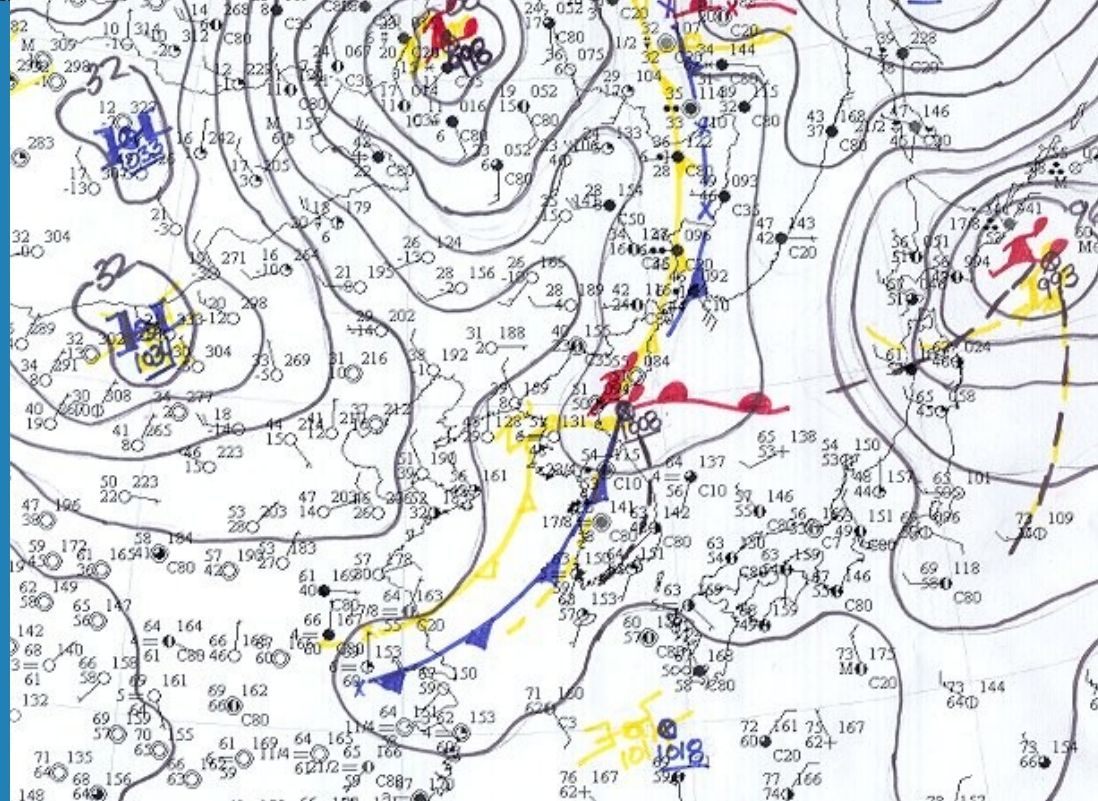
Ir imagery both enhanced and unenhanced indicate thunderstorm s over most of the northern ROK. The surface chart indicates the unstable wave which developed in the last 6 hours begins to weaken and has a central pressure of 1011mbs at this time, filling 3mb in the last 3 hours. Observations from numerous stations in the northern ROK have either Heavy Rainshowers or Thunderstorms.



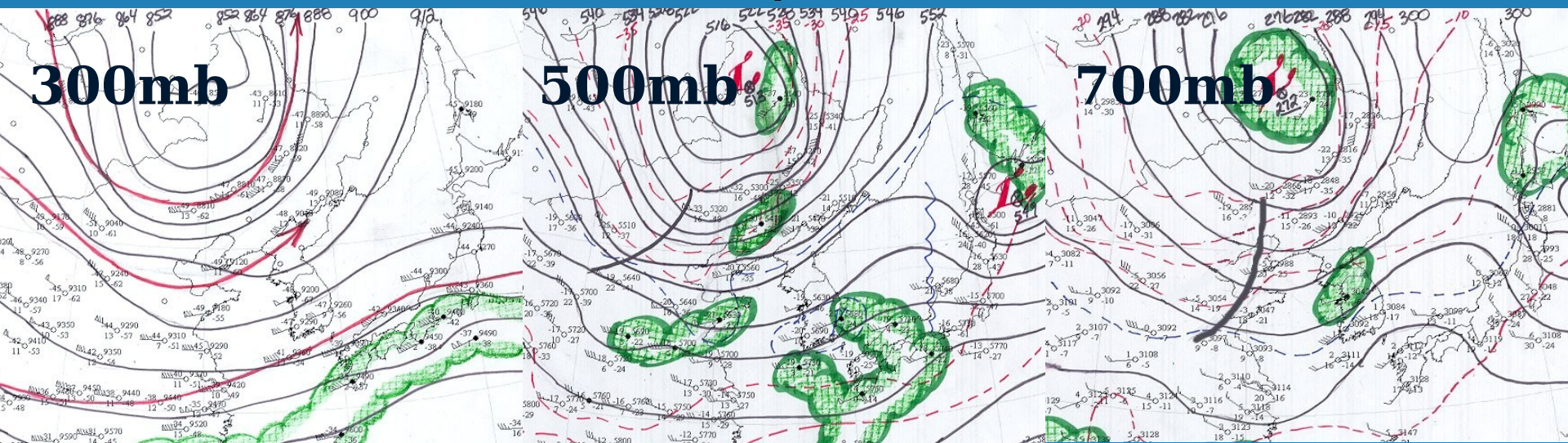


28 Oct 99 /

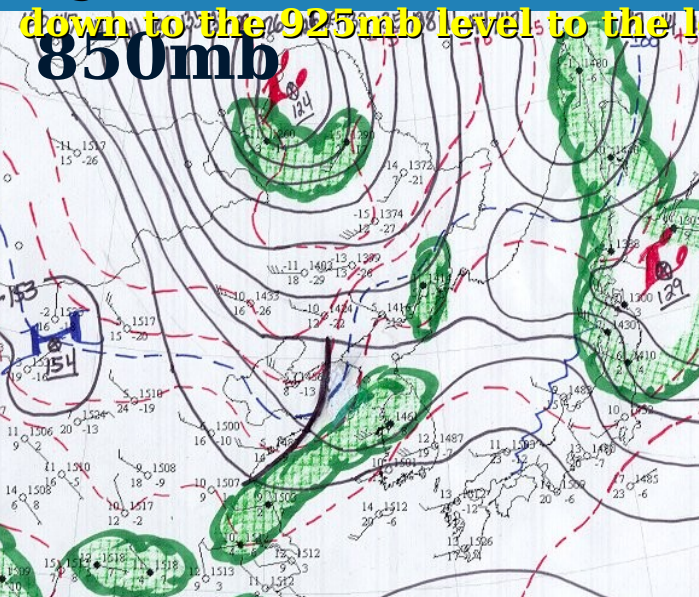
As the unstable wave continues to move northeast across the peninsula, it enters the East Sea and with the added low level moisture the low begins to deepen again 3 mb to 1008mb. Most of the thunderstorms are now confined to the north central ROK and along the north east coast. Some activity still is forming along the southern portion of the front in vicinity of Kunsan. Ir and water vapor imagery indicate a significant decrease in the activity over the pen with more stable stratiform



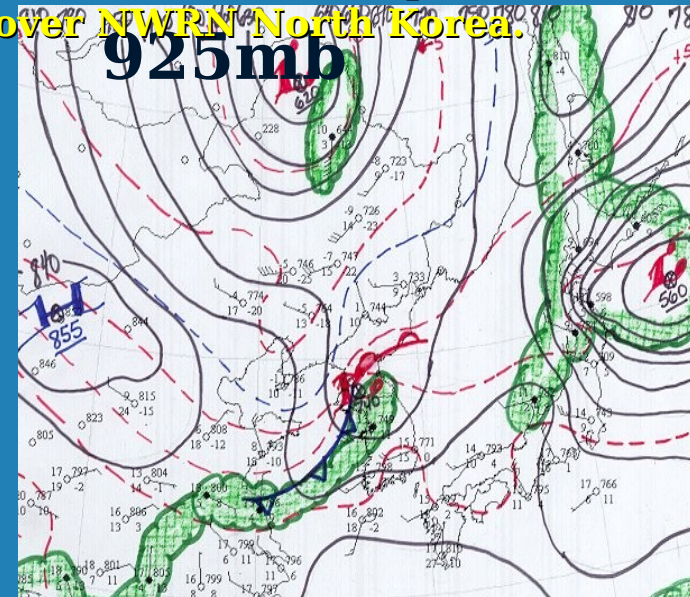
28 Oct 99 / 12Z



300mb: The jet supporting the unstable wave lies through central Mongolia, SE through SWRN Gulf of Pohai, then turning NEWRD into NWRN North Korea. **500mb:** The major short-wave trof lies over inner Mongolia, NW of the Gulf of Pohai. **700mb:** The major short-wave trof over the Gulf of Pohai at this level stacks down from 500mb 1 1/2 degrees. **850mb:** The trof at this level stacks 1 1/2 degrees SE of the 700mb position and down to the 925mb level to the low of 740 meters located over NWRN North Korea.



Post analysis of this package indicates that many the parameters were present for the development of severe weather on this day. More careful analysis of the upper air data would have given



Enter your comments and suggestions here.

Comments:

